



CLEAN VERSION OF THE SPECIFICATION

ELECTRICAL STIMULATION OF THE SYMPATHETIC NERVE CHAIN

This is a CIP of S.N. 09/488,999 filed 1/20/2000, now US Patent No. 6,356,786, and a CIP of S.N. 09/490,617 filed 1/25/2000, now US Patent No. 6,438,423, and a CIP of S.N. 09/511,839 filed 2/24/00, now abandoned, and a CIP of S.N. 09/511,841 filed 2/24/2000, now US Patent No. 6,356,787.

BACKGROUND OF THE INVENTION

[0001] Currently, electrical stimulation of the brain with implanted electrodes is approved for use in the treatment of various movement disorders including Parkinson's and essential tremor. Electrical stimulation is also approved for use in the treatment of tremors in refractory Parkinson's. The principle behind these approaches involves disruption and modulation of hyperactive neuronal circuit transmission at specific sites in the brain. This is achieved by implanting tiny electrodes at these sites to sense aberrant electrical signals and to send electrical pulses to locally disrupt the neuronal transmission.

[0002] It has been recognized that electrical stimulation holds significant advantages over alternative methods of treatment. Lesioning tissue destroys all nerve activity and generally causes collateral damage. While there are a variety of different techniques and mechanisms that have been designed to focus lesioning directly onto the target nerve tissue, collateral damage is inevitable. Even when it is possible to direct all lesioning energy onto the target nerve cluster, it is a significant drawback that other functioning of the nerves is lost. In addition, there are several common side effects to lesioning described in the medical literature. It is because of the development of these and other side effects, including the poor response of medical or surgical therapy especially after a delay in treatment, that thoracic or lumbar sympathectomy has not enjoyed a greater popularity among physicians.

SUMMARY OF THE INVENTION

[0003] The present invention provides a method of affecting physiological disorders by placing at least one stimulation electrode at a specific location along the sympathetic nerve chain. Preferably, the present invention provides a method of affecting a variety of physiological disorders or pathological conditions by placing an electrode adjacent to or in communication with at least one ganglion along the sympathetic nerve chain.